

A PRELIMINARY STUDY OF BIODIVERSITY HOTSPOTS FOR ODONATES IN GALICIA, NW SPAIN

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The analysis of distribution data of odon. in NW Spain indicates the presence of 49 spp. *Macromia splendens*, *Oxygastra curtisii*, *Gomphus graslini* and *Coenagrion mercuriale* are protected under the European Habitats Directive and Spanish Law. Localities of specimens collected between 1978 and 2004 were situated in UTM squares of 10×10 km to produce a map of species richness for the region. Additionally, all localities (UTM 1×1 km) where protected and rare spp. were found are introduced in a GIS system, on a map of the Natura 2000 network of the region. The results indicate that *O. curtisii* and *C. mercuriale* are common in NW Spain. As local rare taxa are identified *Brachytron pratense*, *Aeshna affinis* and *Erythromma viridulum*, because they were found in less than 10 squares, and are also relatively rare in the Iberian peninsula. As areas of special interest are selected those that include all known populations of *M. splendens*, *G. graslini*, and *B. pratense*, all localities with at least 2 of the 4 protected spp., and areas with more than 20 spp. This gives a list of 24 hotspots, most of them (15) at least partially included in the Natura 2000 network. Unfortunately the analysis also reveals that the knowledge of this group is clearly fragmentary, with most records concentrated on the coastal region, and very few squares sampled more than 20 times, the minimum to obtain reliable data. Therefore a systematic sampling of the region is needed to properly identify areas with high species richness.

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**NESOBASIS SPECIES DIVERSITY AND ABUNDANCE:
NOTES ON AN ENDEMIC GENUS OF THE
ISLAND GROUP OF FIJI
(ZYGOPTERA: COENAGRIONIDAE)**

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Compared to other regions in the world, the islands scattered over the south-western Pacific Ocean remain largely unstudied with respect to damselfly biology. Only a few studies have been undertaken and these have been mainly of a taxonomic nature. Here, an overview is presented of the diversity, abundance, distribution and field diagnostic characteristics of spp. within the Fijian genus *Nesobasis*, one of the most speciose odonate genera found in any oceanic island group in the world. 24 spp. (2 undescribed) were encountered during a 2-month visit in the dry season of 2005, collected from Viti Levu and Vanua Levu. This brings the total number of spp. currently known for the genus to 31 (of which only 21 are at present formally described). Information is provided on species diversity and abundances at the major collecting sites. For both islands the most speciose location harboured 8 spp. Abundant spp. tended to be widespread, while less abundant spp. were usually restricted in occurrence to a few sites. Included are basic species descriptions and observations on reproductive activities.

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**THIRTEEN NEW ZYGOPTERA LARVAE
FROM VENEZUELA (CALOPTERYGIDAE, POLYTHORIDAE,
PSEUDOSTIGMATIDAE, PLATYSTICTIDAE,
PROTONEURIDAE, COENAGRIONIDAE)**

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The ultimate instar larvae or exuviae of the following spp. and ssp. are described and illustrated: *Hetaerina medinae* Rácenis, *Euthore f. fasciata* (Hagen), *E. f. plagiata* Selys, *E. f. fastigiata* (Selys), *Microstigma rotundatum* Selys, *Palaemnema clementia* Selys, *Epipleoneura metallica* Rácenis, *Neoneura fulvicollis* Selys, *Acanthagrion imeriense* De Marmels, *A. vidua* Selys, *Argia adamsi* Calvert, *Cyanallagma laterale* (Selys), and *C. tamaense* De Marmels. A key to the known larvae of Polythoridae found in Venezuela is included. The larva of each sp./ssp. is diagnosed against similar larvae of other taxa, and notes on the larval habitat are added.

**THE ODONATA OF THE PACIFIC OCEAN ISLANDS
OF WALLIS AND FUTUNA, WITH SPECIAL REFERENCE
TO SPECIATION IN *ISCHNURA AURORA* (BRAUER)**

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A collection of adult specimens made during a hydrobiological mission (5-23 Oct. 2004) to the French Pacific Island Territories of Wallis and Futuna is studied. It constitutes the first odon. inventory from this archipelago, and is composed of 10 spp. (8 Anisoptera, 2 Zygoptera), all of which were known from the Pacific before. Pacific island material of *Ischnura a. aurora* (Brauer, 1865) is compared with specimens from the western part of the range of this species. These represent a good ssp., *I. a. rubilio* Selys, 1876. Furthermore, 2 new synonyms of *I. aurora* are proposed.

SHORT COMMUNICATIONS

**ZEBRA MUSSEL, *DREISSENA POLYMORPHA* (PALLAS),
ATTACHMENT TO ODONATA LARVAE**

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The attachment of zebra mussels to anisopteran larvae in a lake where the mussels have recently invaded was documented. Fifty-one larvae were collected and the majority (63%) had been colonized by one or more zebra mussels. Some dragonfly larvae were heavily infested, carrying up to 8 zebra mussels and more than their own mass in attached zebra mussels. Potential ramifications of zebra mussel attachment on larval dragonflies are discussed and a framework for future research on these effects is suggested.

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**NEW STATUS FOR *ORTHEMIS MACROSTIGMA* (RAMBUR, 1842)
FROM THE LESSER ANTILLES
(ANISOPTERA: LIBELLULIDAE)**

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Orthemis macrostigma (Ramb.) is elevated to full species status and the Selys ♀ type specimen housed in the IRSNB in Brussels, Belgium, is designated as the lectotype. Additional descriptions of the mature ♂, mature ♀, immature ♂ adult, and the larval exuviae are provided. Diagnoses with *O. ferruginea* (Fabr.) and other related *Orthemis* spp. are included. Notes on behavior, habitat, and range distribution are provided.

***PROGOMPHUS MARCELAE* SPEC. NOV.
FROM WESTERN MEXICO
(ANISOPTERA: GOMPHIDAE)**

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The new sp. is described, illustrated and its affinities are pointed out. Holotype ♂: Mexico, Pinolapa, State of Michoacán, alt. 616 m asl, 19°00.524N; 103°01.456W, 7-XI-2005; deposited in IEXA, Xalapa. It appears closely related to the *pygmaeus-delicatus* group of *Progomphus*, from which it can be distinguished by the shape of the anterior hamuli and epiproct lobes. The ♀ and larva are unknown.

***TEINOBASIS KIAUTAI* SPEC. NOV.,
A NEW SPECIES FROM PAPUA NEW GUINEA
(ZYGOPTERA: COENAGRIONIDAE)**

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The new sp. is described, diagnostic characters of the adult ♂ are illustrated and the affinities of the sp. are discussed. Holotype ♂: Papua New Guinea, Eastern Highlands prov., Herowana, 24-XI-2001; deposited at South Australian Museum, Adelaide. *T. kiautai* sp. n. is most similar to *T. scintillans*, but dramatically differs from it in the shape of the ♂ pronotum.

**THE LARVA OF *ARGIA JOERGENSENI* RIS
(ZYGOPTERA: COENAGRIONIDAE)**

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The larva of *A. joergenseni* is described and illustrated for the first time, based on specimens from NW Argentina, and compared to the sympatric larva of *A. translata*.